

B1 cont
P1 wherein at least a first portion of said conduit is movable with respect to a second portion of said conduit in a non-screw-threaded relation, to cause [permit] a change in said outlet flow direction with respect to said inlet flow direction to any of an infinite number of outlet flow directions in a substantially leak-free manner.

B2
68. (Amended) A backflow preventor assembly comprising:

first and second backflow preventor valves;

a housing encompassing said first and second backflow preventor valves, such that both of said valves automatically close if flow through said backflow preventor assembly drops below a predetermined value, said housing including an inlet opening defining an inlet flow direction, an outlet defining an outlet flow direction and a conduit providing fluid communication between said first and second backflow preventor valves

means for permitting movement of said outlet opening with respect to said inlet opening in a non-screw-threaded relation, to [permit] cause a change in said outlet flow direction with respect to said inlet flow direction to any of an infinite number of outlet flow directions in a substantially leak-free manner.

B3
97. (Amended) A method for adjusting outflow direction in a backflow preventor assembly comprising:

providing first and second backflow preventor valves;

encompassing said first and second backflow preventor valves in a housing, such that both of said valves automatically close if flow through said backflow preventor assembly drops below a predetermined value, said housing including an inlet

B9
Bout

opening defining an inlet flow direction, an outlet defining an outlet flow direction and a conduit providing fluid communication between said first and second backflow preventor valves

moving at least a first portion of said conduit with respect to a second portion of said conduit in a non-screw-threaded relation, to cause a change in said outlet flow direction with respect to said inlet flow direction to any of an infinite number of outlet flow directions in a substantially leak-free manner.

B4

129. (Amended) A backflow preventor apparatus for connection to parallel, oppositely-flowing inlet and outlet conduits, comprising:

a housing configured to accommodate first and second valves, and to receive fluid flow from said inlet conduit flowing in a first direction;

a first valve mounted in said housing having a seatable valve disc having an edge, movable between a closed configuration preventing flow and an open configuration permitting flow in the absence of substantial divergent flow around the edge of said first valve disc;

a second valve mounted in said housing having a seatable valve disc having an edge, movable between a closed configuration preventing flow and an open configuration permitting flow in the absence of substantial diverging flow around the edge of said second valve disc;

said fluid flow having an average streamline path between said inlet conduit and said outlet conduit wherein the sum of changes in flow direction of said average streamline path is not substantially greater than about 180 degrees;

said first valve disc, when in said open configuration, being positioned to direct said flow from said first direction to provide flow in a second direction towards said second valve;

said second valve disc, when in said open configuration, being positioned to direct said flow from said second direction to a third direction towards said outlet conduit; and

wherein said housing is reconfigurable in a non-screw-threaded to a second configuration to [direct] cause a change in said flow from said second direction to a fourth direction, different from said third direction wherein said fourth direction is any of an infinite number of outflow directions.

REMARKS

The present invention is directed to a method and apparatus for use in backflow prevention so that the direction of outflow can be adjusted with respect to the direction of inflow. As described in the specification, this permits a reduction in the costs of parts, labor and design involved in installing such devices and reduces undesirable pressure loss.

Claims 1, 3, 5 and 7 stand rejected under 35 USC §102(b) over Rand. The Examiner states that threads 36 allow for relative movement between the "conduit" first and second positions to "permit" a change in flow direction. Although the screw threads 36 might permit relative rotation of the conduit between first and second valves, such a rotation would not result in a change in the outlet flow direction. To emphasize this distinction, claim 1 has been amended to refer to the first portion being movable to cause a change in the outflow direction.

Furthermore, Rand discloses that the sections are in screw-threaded relation. Page 2, lines 7-8. Claim 1, on the